UNITED STATES PATENT APPLICATION FOR

METHODS AND APPARATUSES FOR
POSTING MESSAGES TO PARTICIPANTS OF AN EVENT

Inventors:

Sean Christopher Endler
Joseph Steven Herres
Ippei Tambata

Prepared by:

Valley Oak Law

5655 Silver Creek Valley Road

#106

San Jose, California 95138

(408) 223-9763

METHODS AND APPARATUSES FOR
POSTING MESSAGES TO PARTICIPANTS OF AN EVENT

5

FIELD OF THE INVENTION

The present invention relates generally to posting messages and, more particularly, to posting messages to participants of an event.

10   BACKGROUND

There has been a proliferation of portable electronic device utilized by both business and personal users. These portable electronic devices aid the user in tracking of their schedules, communicating with others via voice, and communicating with others via electronic messages. These portable electronic

15   devices include cellular phones, personal digital assistants (PDAs), and the like.

For some users, these portable electronic devices are indispensable for organizing their calendars and communicating with others both for their professional and personal lives. For example, in some instances, the portable electronic device is used to set up a meeting between another person by

20   communicating via either voice signals or electronic messages. In some instances, the portable electronic device is also used to store the meeting time and location on the user's calendar. In some instances, the portable electronic device also reminds the user of the scheduled meeting and directs the user to the meeting location based on the user's current location.

25

SUMMARY

In one embodiment, the methods and apparatuses select an event; search for an event profile corresponding to the event wherein the event profile includes a plurality of participants of the event; determine a plurality of recipients of a message based on the plurality of participants of the event; and display the message to the plurality of recipients based on a status of each of the plurality of recipients.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are incorporated in and constitute a

part of this specification, illustrate and explain one embodiment of the methods

5   and apparatuses for posting messages to participants of an event. In the

drawings,

Figure 1 is a diagram illustrating an environment within which the methods

and apparatuses for posting messages to participants of an event are

implemented;

10   Figure 2 is a simplified block diagram illustrating one embodiment in which

the methods and apparatuses for posting messages to participants of an event

are implemented;

Figure 3 is a simplified block diagram illustrating a system, consistent with

one embodiment of the methods and apparatuses posting messages to

15   participants of an event;

Figure 4 is an exemplary record for use with the methods and apparatuses

for posting messages to participants of an event;

Figure 5 is a flow diagram consistent with one embodiment of the methods

and apparatuses for posting messages to participants of an event;

20   Figure 6 is a flow diagram consistent with one embodiment of the methods

and apparatuses for posting messages to participants of an event;

Figure 7 is an exemplary screen shot consistent with one embodiment of

the methods and apparatuses for posting messages to participants of an event;

Figure 8A, 8B, and 8C are exemplary screen shots consistent with one embodiment of the methods and apparatuses for posting messages to participants of an event; and

Figure 9 is an exemplary screen shot consistent with one embodiment of

5   the methods and apparatuses for posting messages to participants of an event.

DETAILED DESCRIPTION

The following detailed description of the methods and apparatuses for posting messages to participants of an event refers to the accompanying

5   drawings. The detailed description is not intended to limit the methods and apparatuses for posting messages to participants of an event. Instead, the scope of the methods and apparatuses for posting messages to participants of an event are defined by the appended claims and equivalents. Those skilled in the art will recognize that many other implementations are possible, consistent

10   with the present invention.

References to a "device" include a device utilized by a user such as a computer, a portable computer, a personal digital assistant, a cellular telephone, and a device capable of receiving/transmitting an electronic message.

References to an "event" or "meeting" include a congregation of one or

15   more participants.

References to "messages" includes electronic messages, electronic entries, and electronic notes. In one embodiment, the content of the messages includes textual data, graphical data, video footage, digital images, and audio data.

20   References to "participants" includes actual participants of an event and potential participants of an event.

In one embodiment, the methods and apparatuses for posting messages to participants of an event allows a participant of the event to post messages to

other participants of the event. In one embodiment, these messages are received by the recipients instantaneously when the recipients are "on-line". In another embodiment, these messages are stored for the recipients such that the recipients are not required to be "on-line" to receive these messages.

5   By setting up a meeting, participants are able to communicate with other participants through these messages prior to the event, during the event, and after the event.

In one embodiment, the participants are indicated in an event profile that describes details regarding the event. In one embodiment, a record is associated

10   with each event and contains the event information.

Figure 1 is a diagram illustrating an environment within which the methods and apparatuses for posting messages to participants of an event are implemented. The environment includes an electronic device 110 (e.g., a computing platform configured to act as a client device, such as a computer, a

15   personal digital assistant, and the like), a user interface 115, a network 120 (e.g., a local area network, a home network, the Internet), and a server 130 (e.g., a computing platform configured to act as a server).

In one embodiment, one or more user interface 115 components are made integral with the electronic device 110 (e.g., keypad and video display

20   screen input and output interfaces in the same housing such as a personal digital assistant. In other embodiments, one or more user interface 115 components (e.g., a keyboard, a pointing device such as a mouse, a trackball, etc.), a microphone, a speaker, a display, a camera are physically separate from, and

are conventionally coupled to, electronic device 110. In one embodiment, the user utilizes interface 115 to access and control content and applications stored in electronic device 110, server 130, or a remote storage device (not shown) coupled via network 120.

5   In accordance with the invention, embodiments of posting messages to participants of an event below are executed by an electronic processor in electronic device 110, in server 130, or by processors in electronic device 110 and in server 130 acting together. Server 130 is illustrated in Figure 1 as being a single computing platform, but in other instances are two or more interconnected

10   computing platforms that act as a server.

Figure 2 is a simplified diagram illustrating an exemplary architecture in which the methods and apparatuses for posting messages to participants of an event are implemented. The exemplary architecture includes a plurality of electronic devices 110, a server device 130, and a network 120 connecting

15   electronic devices 110 to server 130 and each electronic device 110 to each other. The plurality of electronic devices 110 are each configured to include a computer-readable medium 209, such as random access memory, coupled to an electronic processor 208. Processor 208 executes program instructions stored in the computer-readable medium 209. In one embodiment, a unique user

20   operates each electronic device 110 via an interface 115 as described with reference to Figure 1.

The server device 130 includes a processor 211 coupled to a computer-readable medium 212. In one embodiment, the server device 130 is coupled to

one or more additional external or internal devices, such as, without limitation, a

secondary data storage element, such as database 240.

In one instance, processors 208 and 211 are manufactured by Intel

Corporation, of Santa Clara, California. In other instances, other

5   microprocessors are used.

In one embodiment, the plurality of client devices 110 and the server 130

include instructions for a customized application for capturing and storing content

related to an event. In one embodiment, the plurality of computer-readable

media 209 and 212 contain, in part, the customized application. Additionally, the

10   plurality of client devices 110 and the server 130 are configured to receive and

transmit electronic messages for use with the customized application. Similarly,

the network 120 is configured to transmit electronic messages for use with the

customized application.

One or more user applications are stored in media 209, in media 212, or a

15   single user application is stored in part in one media 209 and in part in media

212. In one instance, a stored user application, regardless of storage location, is

made customizable based on capturing and storing content related to an event

as determined using embodiments described below.

Figure 3 illustrates one embodiment of a system 300. In one embodiment,

20   the system 300 is embodied within the server 130. In another embodiment, the

system 300 is embodied within the electronic device 110. In yet another

embodiment, the system 300 is embodied within both the electronic device 110

and the server 130.

In one embodiment, the system 300 includes an event detection module 310, a participant selection module 320, a storage module 330, an interface module 340, a control module 350, and a message control module 360.

In one embodiment, the control module 350 communicates with the event

5   detection module 310, the participant selection module 320, a storage module 330, the interface module 340, and the message control module 360. In one embodiment, the control module 350 coordinates tasks, requests, and communications between the event detection module 310, the participant selection module 320, a storage module 330, the interface module 340, and the

10   message control module 360.

In one embodiment, the event detection module 310 detects an event that is scheduled. In one embodiment, the event is a meeting among one or more participants at an event location, at an event time, for an event duration, and with event participants. In one example of an event, the event location is at Joe's

15   Java at an event time of 10:00 PM on September 12, 2004 for the event duration of 2 hours with specific event participants.

In one embodiment, the event is scheduled in advance of the actual event and is detected by the system 300 as the event is scheduled. In another embodiment, as the event is occurring, the system 300 detects the event.

20   In one embodiment, the device detection module 310 receives a signal from an electronic device informing the system 300 of the event. In one embodiment, the signal includes additional information regarding the event such as event location, event time, event duration, and event participants

In one embodiment, by identifying the event, the device detection module

310 utilizes additional information associated with the particular event. Additional

information corresponding with the particular event is shown in an exemplary

record illustrated in Figure 4. In one embodiment, this additional information is

5   utilized by the system 300.

In one embodiment, the participant selection module 320 determines

which participants should be included as recipients in a posted message relating

to the event. In one embodiment, all participants of the event are selected to be

recipients of the posted message. In another embodiment, only participants that

10   are actually attending the event are included as recipients. In yet another

embodiment, only participants that are undecided about attending the event are

included as recipients. In yet another embodiment, only participants that are not

attending the event are included as recipients. In yet another embodiment, the

sender of the posted message refines the list of recipients.

15   In one embodiment, the storage module 330 stores a record including

information associated with a particular event.   An exemplary embodiment of the

information contained within the record associated with an event is illustrated in

Figure 4.

In one embodiment, the interface module 340 receives a signal from one

20   of the electronic devices 110 indicating an event that is received by the system

300. In another embodiment, the interface module 340 receives a signal from

one of the electronic devices 110 transmitting a message to the participants of an

event. In yet another embodiment, the interface module 340 transmits the

message to selected recipients to one of the electronic devices 110.

In one embodiment, the message control module 360 transmits the message to selected participants of the event. In one embodiment, the messages are sent to each recipient based on the status of the recipient.

5   In one embodiment, if the recipient is currently on-line and able to receive messages, then the message is transmitted to the recipient and displayed to the recipient for a predetermined amount of time.

In another embodiment, if the recipient is not currently available, then the message is transmitted to the recipient and stored for the recipient. In this
10   embodiment, the message will be displayed to the recipient when the recipient is available. Further, when the message is displayed to the recipient at a later time, the message is displayed for a predetermined amount of time.

In one embodiment, the recipient is likely to be on-line and available based on the timing of the recipient's last activity. For example, if the recipient
15   has recently executed a function, then the recipient is mostly likely still on-line and active.

In one embodiment, after the predetermined amount of time has passed, the message is no longer displayed to the recipient. In one embodiment, the message is deleted after the predetermined amount of time. In another
20   embodiment, the message is archived after the predetermined amount of time.

The system 300 in Figure 3 is shown for exemplary purposes and is merely one embodiment of the methods and apparatuses for posting messages to participants of an event. Additional modules may be added to the system 300

11

without departing from the scope of the methods and apparatuses for posting messages to participants of an event. Similarly, modules may be combined or deleted without departing from the scope of the methods and apparatuses for posting messages to participants of an event.

5   Figure 4 illustrates an exemplary record 400 identifying attributes of a particular event for use with the system 300. In one embodiment, there are multiple records such that each record 400 is associated with a particular event. In one embodiment, the record 400 includes an event location field 410, an event time/date field 420, an event duration field 430, and an event participant field

10   440.

In one embodiment, the event location field 410 uniquely identifies the location of the event. In one embodiment, the address of the location for the event is utilized. In another embodiment, the name of the location for the event is utilized, and the name of the location is associated with the street address.

15   For example, if the event is located at Joe's Café, then the street address for Joe's Café is utilized. In another example, the name Joe's Café is utilized for the event location and the street address for Joe's Café is cross referenced in a separate database.

In one embodiment, the event time/date field 420 uniquely identifies the

20   date and time of the event. For example, the event time/date field indicates a date and time of the event such as February 27, 2004 at 4 PM.

In one embodiment, the event duration field 430 identifies the length of time scheduled for the event.

In one embodiment, the event participant field 440 identifies the participants that are attending the event. The event participant field 440 lists the participants of the event. In one embodiment, each unique device is utilized by a single participant. In one example, the identity of the participant is determined by

5   the device .

In another embodiment, when there are multiple users corresponding to each device, a password is utilized to identify the particular participant.

The flow diagrams as depicted in Figures 5 and 6 are one embodiment of the methods and apparatuses for posting messages to participants of an event.

10   The blocks within the flow diagrams can be performed in a different sequence without departing from the spirit of the methods and apparatuses for posting messages to participants of an event. Further, blocks can be deleted, added, or combined without departing from the spirit of the methods and apparatuses for posting messages to participants of an event.

15   The flow diagram in Figure 5 illustrates selecting recipients for a message based on participants of an event according to one embodiment of the invention.

In Block 510, a message originating from a sender is detected. In one embodiment, the message corresponds to an event.

In Block 520, the event is detected. In one embodiment, the event

20   includes business meetings, social gatherings, activity groups, and the like. In one embodiment, a single event is detected. In another embodiment, multiple events are detected.

In Block 530, information related to the event (event profile) is searched. In one embodiment, the event profile is stored within the storage module 330. In one embodiment, the event profile includes the event location, event time/date, event duration, and event participants. An exemplary event profile record is

5   shown in Figure 4.

In Block 540, the participants of the event are detected. In one embodiment, the participants are listed within the event profile. In one embodiment, the participants include all invited participants which includes participants attending the event, participants declining to attend the event, and

10   participants unsure of whether they are attending the event or not.

In Block 550, the sender refines the list of participants. In one embodiment, the sender deletes participants determined in the Block 540. In another embodiment, the sender adds additional recipients that are not listed as participants.

15   In Block 560, the message is sent to the recipients as refined and selected from the Block 550.

The flow diagram in Figure 6 illustrates transmitting a message to the recipients according to one embodiment of the invention.

In Block 610, the selected participants which are the recipients of the

20   message are determined. In one embodiment, the selected participants are identified in the Block 550.

In Block 620, the status of each of the selected participants are detected. In one embodiment, the participant is currently on-line and available to receive

14

the message immediately. In another embodiment, the participant is on-line but is not available to view the message immediately. In yet another embodiment, the participant is not on-line.

In one embodiment, the participant selects the participant's status. In another embodiment, the interaction from the participant is monitored. Based on the participant's actions, the status of the participant is determined.

In Block 630, the message is transmitted to the selected participants.

In Block 640, based on whether the participant is available, the message is delivered to the selected participants. In one embodiment, the participant is considered available if the participant is on-line and available to view a message immediately. In another embodiment, the participant is considered available if the participant is on-line but has momentarily stepped away.

If the participant's status is available, then the message is displayed to the participant in the Block 650.

In Block 660, the message that is displayed to the participant is removed. In one embodiment, the message is displayed for a predetermined length of time before removal. In another embodiment, the message is displayed until the participant elects to terminate the display of the message.

If the participant's status is not available, then the message is stored at a device corresponding to the participant in the Block 650.

In Block 680, the message is displayed to the participant when the participant is available to view the message.

In Block 690, the message that is displayed to the participant is removed. In one embodiment, the message is displayed for a predetermined length of time before removal. In another embodiment, the message is displayed until the participant elects to terminate the display of the message.

5   In Block 695, the message is disposed after the termination of display from the participant. In one embodiment, the message is archived for later viewing by the participant. Further, the message is archived with the associated event. In another embodiment, the message is deleted after viewing by the participant.

10   Figure 7 illustrates a screen shot 700 that displays information relating to a messaging between multiple participants of an event. An event 710 is shown along with an event participant icon 701, an event location icon 702, an event time/date icon 703, and a dialog icon 705. The dialog icon 705 is shown with a number "2" which represents the number of participants that are participating in a

15   chat session. This chat session is represented by the icon 720. The messages 730 are posted by the participants within the chat session icon 720.

Figure 8A illustrates a screen shot 800 that displays information relating to a message placed on an event post board. In one embodiment, the event post board is utilized when the participants are not available to receive the message.

20   In one embodiment, the event post board is utilized when receiving a message in real-time is not available. An event 810 is represented as a coffee date with Kristy. The event 810 is shown with a timer 801, a connection 803, and a post input box 820. In one embodiment, the messages posted through the post input

box 820 are collected among the participants of the event 810 and posted on a

post board that is accessed by the participants.

In one embodiment, the connection 803 between the post input box 820

and the event 810 represent a connection between the post input box 820 and

5   the event 810 such that messages generated through the post input box 820 are

associated with the event 810.

Figure 8B illustrates a screen shot 830 that displays information relating to

a message placed through a dialog chat system. In one embodiment, the dialog

chat system is utilized when the participants are available to receive the

10   message. The messages that are received by the participants through the dialog

chat system are configured to be received in real-time. The event 810 is shown

with a chat bubble 835 and a dialog input box 832. In one embodiment, the

messages posted through the dialog input box 832 are shown in real-time to the

chat bubble 835. In one embodiment, the chat bubble 835 is associated with a

15   particular participant of the event 810 and is accessed by the particular

participant.

In one embodiment, the connection 803 between the dialog input box 832

and the event 810 represent a connection between the dialog input box 832 and

the event 810 such that messages generated through the dialog input box 832

20   are associated with the event 810 and available to the particular participant

having access to the chat bubble 835.

Figure 8C illustrates a screen shot 840 that displays information relating to

a message placed through a dialog chat system. The event 810 is shown with

17

the chat bubble 835, the dialog input box 832, and the connection 803. An event

845 is shown with a chat bubble 850, a timer 802, and a connection 804.

In one embodiment, the connections 803 and 804 between the dialog

input box 832 and the events 810 and 845 represents a connection between the

5   dialog input box 832 and the events 810 and 845 such that messages generated

through the dialog input box 832 are associated with both the events 810 and

845 and available to the particular participant having access to the chat bubbles

835 and 850.

In one embodiment, by having both connections 803 and 804, the

10   messages are forwarded to both chat bubbles 835 and 850. By severing one of

the connections 803 and 804 or adding a new connection alters the number of

chat bubbles receiving the message. By utilizing the connections 803 and 804,

the sender is able to send a message to participants of one or both of the events

810 and 845.

15   Figure 9 illustrates a screen shot 1000 that displays information relating to

a message placed on an event post board. An event post board 1010 includes a

listing of posted entries 1020 and a post input box 1030. In one embodiment, the

listing of posted entries 1020 is configured to receive and display messages

associated with a particular event. In one embodiment, these messages

20   originate from one of the participants of the particular event.

The foregoing descriptions of specific embodiments of the invention have

been presented for purposes of illustration and description. The invention may

be applied to a variety of other applications.

They are not intended to be exhaustive or to limit the invention to the precise embodiments disclosed, and naturally many modifications and variations are possible in light of the above teaching. The embodiments were chosen and described in order to explain the principles of the invention and its practical application, to thereby enable others skilled in the art to best utilize the invention and various embodiments with various modifications as are suited to the particular use contemplated. It is intended that the scope of the invention be defined by the Claims appended hereto and their equivalents.